112 STATE STREET
DRAWER 20
MONTPELIER VT 05620-2601
TEL: (802) 828-2811

FAX: (802) 828-2342
TTY (VT): 1-800-734-8390
e-mail: vtdps@psd.state.vt.us
Internet: http://www.state.vt.us/psd

STATE OF VERMONT
DEPARTMENT OF PUBLIC SERVICE

December 8, 2003

RE: Vermont Yankee Nuclear Power Station
License No. DPR-28 (Docket No. 50-271)
Technical Specification Proposed Change No. 263
Extended Power Uprate - State of Vermont Questions

Richard Ennis, Project Manager
U.S. Nuclear Regulatory Commission
Washington, D.C., 20555

Dear Mr. Ennis,

We have received a copy of Entergy Nuclear Vermont Yankee's (Entergy's) request of September 10, 2003, to amend Vermont Yankee Nuclear Power Station's operating license to increase the maximum authorized power level from 1593 megawatts thermal (MWt) to 1912 MWt. Accompanying Entergy's request is a non-proprietary version of NEDC-33090, *Safety Analysis Report for Vermont Yankee Nuclear Power Station Constant Pressure Power Uprate ("PUSAR")*, September 2003 (Attachment 6).

We have developed certain preliminary questions from review of the September 10, 2003 request:

1. We note that Entergy's request relies upon a proprietary version of the *Safety Analysis Report for Vermont Yankee Nuclear Power Station Constant Pressure Power Uprate ("PUSAR")*, NEDC-33090P, September 2003, which was provided to the NRC as Attachment 4, but which was withheld from public disclosure. In addition, we note that PUSAR relies heavily upon a proprietary document which your agency has approved, GE Nuclear Energy, *Constant Pressure Power Uprate Licensing Topical Report ("CLTR")*, NEDO-33004P-A, July 2003. Your March 31, 2003 approval of CLTR contains proprietary information. Furthermore, it appears the review and approval process of CLTR may depend on earlier proprietary documents, known as ELTR1 and ELTR2, and their related proprietary safety evaluations.

   In order to understand the safety implications of Entergy's proposal, Vermont, through its Department of Public Service, needs to be able to review this proprietary information. Specifically, Vermont needs to be able to review proprietary documents from others upon which NRC will rely in its consideration of the acceptability of Entergy's request, and Vermont needs to receive proprietary requests for additional information, review comments and evaluations that NRC may make based on proprietary documents.

A001

We are willing to enter into necessary confidentiality agreements to allow our needs to be met with regard to this proprietary material. Therefore, we ask that you identify a point of contact with whom we can execute the necessary documentation.

2. We have questions regarding Entergy's request to change its licensing basis to allow crediting of containment pressure for calculating certain pumps net positive suction head (NPSH) following postulated loss-of-coolant accidents (LOCA), station blackouts, and Appendix R fire events:

   a. It appears the base guidance for reviewing this area is Standard Review Plan (SRP) 6.2.2, *Containment Heat Removal Systems*, Rev. 4, October 1985. SRP 6.2.2 appears to follow Regulatory Guide 1.1 (Safety Guide 1) and is unequivocal that credit may not be taken for containment pressurization for NPSH considerations. However, the draft Review Standard for Extended Power Uprates, RS-001, December 2002, indicates that the review standard for this area is SRP 6.2.2, as supplemented by Draft Regulatory Guide (DG) 1107, *Water Sources for Long-term Recirculation Cooling following a Loss-of-Coolant Accident*, February 2003. DG 1107, at 7, includes the statement:

      > Predicted performance of the emergency core cooling and the containment heat removal pumps *should be* independent of the calculated increases in containment pressure caused by postulated LOCAs in order to ensure reliable operation under a variety of possible accident conditions. . . However, for some operating reactors, credit for containment accident pressure *may be necessary*. This should be minimized to the extent possible. [Emphasis added.]

      1) What guidance does the agency have for determining whether "credit for containment accident pressure [is] necessary"?

      2) Does the agency believe that it is *necessary* to operate at extended uprated power level, thereby creating the necessity for allowing credit for containment accident pressure? If the answer is in the affirmative, please identify the reason the agency thinks operating at extened uprated power level is *necessary*?

      3) What is the agency's policy regarding review to draft (rather than final) review guidance?

   b. Regulatory Position 2.1.1.2 of DG 1107 (at 16) states:

      > For certain operating reactors for which the design cannot be *practicably altered*, compliance with Regulatory Position 2.1.1.1 [i.e., no credit for containment accident pressure] may not be possible.

Does the agency consider operation at OLTP to be a practicable alteration to allow compliance with Regulatory Position 2.1.1.1?

c. At what uprated power level could Vermont Yankee operate and not claim credit for containment accident pressure in its NPSH calculations?

d. Could you please identify for which licensees you have found it necessary to allow credit for containment accident pressure, and the reasons you found it necessary?

e. VY PUSAR Table 4-2 and Figure 4-6 identify that containment accident pressure credit is taken for a period over two days after an accident. Since this constitutes the use of the reactor containment in a new manner, i.e., as an engineered safety feature to guarantee a minimum level of pressure over a 50 hour period, is additional containment pressure testing required to demonstrate pressure will be maintained for that period?

f. What is the safety implication if credit for containment accident pressure is allowed? What is the agency's basis for allowing the regulatory requirement changed proposed by DG-1107?

3. In Attachment 7 to License Amendment Request for VY EPU, Entergy provides justification for exception to large transient testing. It does not appear that Entergy discusses the April 16, 2003 inadvertent opening of a power operated relief valve (PORV) at Quad Cities 2 and its role in the second failure of the steam dryer. Should this experience at Quad Cities 2 be considered for the decision whether to large transient testing is required?

4. VY PUSAR Section 4.6 states that VYNPS does not use a Main Steam Isolation Valve Leakage Control System. Why isn't the alternate leakage treatment pathway, described in Entergy's Technical Specification Proposed Change No. 262 (Alternate Source Term), considered a Main Steam Isolation Valve Leakage Control System?

We appreciate your consideration of these items and your assistance in helping us understand the aspects of Vermont Yankee's proposed power uprate. If you have questions about these items, please call me at 802-828-3349.

Sincerely,

William K. Sherman

William K. Sherman
Vermont State Nuclear Engineer

cc: David O'Brien - Commissioner
Ledyard Marsh - NRC
David McElwee - Entergy Nuclear Vermont Yankee